



FACT SHEET

UNITED STATES AIR FORCE

552nd Air Control Wing

Office of Public Affairs
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552nd COMPUTER SYSTEMS SQUADRON



The 552nd Computer Systems Squadron is an operational unit of Air Combat Command's 552nd Computer Systems Group, 552nd Air Control Wing, Tinker Air Force Base, Okla.

MISSION

The 552nd Computer Systems Squadron provides combat and support software for the E-3 AWACS command and control aircraft supporting combatant commanders. It conducts aircrew training on software changes and deploys teams for E-3 software support worldwide. The squadron is also responsible for E-3 data link standards interoperability testing and certification with other joint allied command and control platforms. The squadron consists of the Operational Test Flight, AWACS Software Development Flight, Software Services Flight, and Combat Support Flight.

The Operational Test Flight conducts independent system-level testing of E-3 operational software, associated combat support software, and 552nd Computer Systems Group small computer projects. The flight provides data link experts for operational support and develops design changes based on U.S. Joint Service requirements. The flight ensures E-3 software integrity and continued

mission capability through Air Force and U.S. Joint Service certification of Air Force, Army, Navy, and National Security Agency battle management platforms. Additionally, the flight tests software for the AWACS Deployable Mission Support System (AD-MSS), which includes data reduction and replay capability. Furthermore, the flight validates all E-3 electronic support measures databases. Finally, the flight develops, maintains, and tests AWACS Management System (AMS), a comprehensive application used to schedule and manage 552nd Air Control Wing resources.

The AWACS Software Development Flight is responsible for designing and coding software changes to the Airborne Operational Computer Program (AOCP), Mission Simulator Computer Program, 4PI System Maintenance Computer Programs, E-3 In-Flight Performance Computer Programs and AWACS ground support computer systems.

The Combat Support Flight provides mission support for the E-3, including the AWACS Deployable Mission Support System (ADMSS), which can replay critical segments of an AWACS mission on a personal computer, and maintenance of all AWACS map, geographical, and Electronic Support Measures (ESM) databases and utilities. Combat Support is also responsible for providing deployment ready personnel in support of all AWACS worldwide operations and contingencies. Additionally, Combat Support initially developed AWACS Management System (AMS) until the continued development and maintenance was contracted out to Leader Communication Inc. in 2003. AWACS world provides mission and crew schedulers with the information to easily and efficiently schedule qualified and available aircrew members for AWACS missions.

The Software Services Flight is responsible

for project management to include analysis, planning, implementation and tracking of projects. The flight is also responsible for configuration management, and production management of all E-3 AWACS operational and mission support software.

The 552nd Computer Systems Squadron also updates and maintains a competitive software engineering process to support all E-3 software operations, as well as a software quality assurance program that ensures quality results.

HISTORY

The 552nd Computer Systems Squadron was activated May 29, 1992, under the name 552nd Airborne Computer Squadron. The formation of the squadron resulted from the reorganization of the 552nd Air Control Wing and the deactivation of the 28th Air Division.

Since 1977 the squadron has received 8 different software versions from Boeing and produced 45 locally changed versions of software to meet crew requirements.

From 1984 to 1985 the squadron coordinated and installed the Facility for Interoperability Testing (FIT), a scaled down E-3 simulator, enabling programmers to more thoroughly test new software changes.

From 1990 to 1991, the squadron deployed people and equipment to support AWACS missions during Desert Shield and Desert Storm. The

squadron enhanced the E-3 sensor suite, saving the government nearly 1 million dollars.

In October 1993, the squadron took over capsule software responsibility for the EC-130 Airborne Battlefield Command and Control Center (ABCCC).

On July 1, 1994 the squadron's name was changed to its current designation as part of Air Force restructuring.

In July 1996, the squadron relinquished control of the ABCCC capsule software to contractor support.

The squadron has actively and successfully engaged in a long-term Software Process Improvement (SPI) program. Throughout 1996, a comprehensive Software Engineering Process was re-defined and documented, establishing a baseline for future improvement efforts.

In January 1997, the squadron reorganized, consolidating project management and support activities to focus on improving and maturing the software development craft. The Air Force Communications Agency acknowledged the efforts during a unit assessment and awarded the squadron Software Capability Maturity Model Level III rating in August 1997. This placed the squadron in the top eight percent of all assessed federal software agencies. The squadron continues to develop and mature, pressing on with improvement efforts to be the Air Force's premier software development agency.